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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,384	07/27/2000	Lester F. Ludwig	COLB-002/01US	2926
23373	7590	03/21/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			SELLERS, DANIEL R	
			ART UNIT	PAPER NUMBER
			2644	
DATE MAILED: 03/21/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/601,384	LUDWIG, LESTER F.	

Examiner	Art Unit
Daniel R. Sellers	2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 27 July 2000.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-49 is/are pending in the application.
 4a) Of the above claim(s) 11-49 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-10 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) 11-49 are subject to restriction and/or election requirement. *✓*

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 27 July 2000 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-10, drawn to a digital audio data processing system, class 700, subclass 94.

Group 2, claim(s) 11-25, drawn to a two-way video and voice communication system, class 348, subclass 14.01.

Group 3, claim(s) 26-49, drawn to a liquid crystal display having an input and output, class 345, subclass 104.

2. The inventions listed as Groups 1, 2, and 3 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Groups 1, 2, and 3 do not share the features of a display device with a microoptic structure. They also do not share the feature of supporting a network, such as the internet.

3. During a telephone conversation with Alan Kasper on 3/7/2005 a provisional election was made without traverse to prosecute the invention of Group 1, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action.

Claims 11-49 are withdrawn from further consideration by the examiner, 37

CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

1. Claims 6-10 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 6-10 have not been further treated on the merits. Claims 7, 9, and 10 are objected to because they depend directly or indirectly on the improper multiple dependent claims 6 and/or 8.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Minami et al., U.S. Patent No. 5,555,310 (hereinafter Minami).

4. Regarding claim 1, see Minami

A device for use in association with a multimedia system capable of capturing and/or reproducing at least audio signals at a multimedia workstation, the device being

*A) associated with at least one microphone and
B) configured to*

i) perform adaptive acoustic stereo echo-canceling operations (Col. 3, lines 58-62 and Col. 6, lines 56-63)

(a) on at least one channel of audio captured at the associated microphone. (Col. 3, lines 63-64).

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Minami teaches a multimedia system capable of capturing and reproducing audio signals and performing adaptive acoustic echo-canceling operations.

5. Regarding claim 2, the further limitation of claim 1, see Minami

... *wherein*

A) *the device is*

i) *associated with a plurality of microphones and (Fig. 3, units 101R and 101L)*

ii) *further configured to have*

(a) *synthetic aperture microphone processing capabilities. (Col. 5, lines 45-52)*

Minami teaches a device with synthetic aperture microphone capabilities.

6. Regarding claim 3, the further limitation of claim 2, see Minami

... *wherein*

A) *the adaptive acoustic stereo echo-canceling and synthetic microphone processing capabilities*

B) *are combined in a single packaging. (Fig. 9, units 510₁-510₄, 600, and 720)*

It is inherent that the apparatus, taught by Minami, is combined in a single packaging.

7. Regarding claim 4, see the preceding argument with respect to claim 1.

A device for use in association with a multimedia system capable of reproducing at least audio signals at a multimedia workstation, the device

A) *being associated with a plurality of microphones, and*

B) *including synthetic aperture microphone processing capabilities.*

Minami teaches a multimedia system with these features using a plurality of microphones.

8. Regarding claim 5, the further limitation of claims 2, 3, or 4, see Minami

... *wherein*

A) *the synthetic aperture microphone processing capabilities include the capability to*

i) *adjust a position of a spatial region*

(a) *corresponding to the area of maximum sensitivity of the synthetic aperture microphone function. (Col. 21, lines 28-65)*

Minami teaches a system with these features.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chu et al., U.S. Patent No. 5,664,021 and Benesty et al., U.S. Patent No. 5,828,756.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel R. Sellers whose telephone number is 703-605-4300. The examiner can normally be reached Monday to Friday 9am to 6:30pm with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


SINH TRAN
SUPERVISORY PATENT EXAMINER

DRS